

## UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303112F AIR FORCE COMMUNICATIONS

PROJECT

4884

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4884 Public Key Infrastructure Implementation	29,481	0	0	0	0	0	0	0	0	29,481
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description**

PUBLIC KEY INFRASTRUCTURE (PKI):

PKI encompasses the techniques and standards used to manage certificates and public and private keys in order to authenticate the validity of each party involved in an electronic transaction. Department of Defense (DoD) PKI was mandated by the Deputy Secretary of Defense on 8 Aug 97 and the Services were further directed to use the capabilities in a 6 May 99 memo. PKI supports the overall Defense-in-Depth strategy for information assurance capabilities -- user identification, non-repudiation, digital signatures and encryption for government electronic business and network transactions -- protecting/securing all network information.

Funds were used to support initial implementation and integration of PKI user smart card , public key directory storage of the PKI certificates, PKI registration for both users and servers, and initial training on NIPRNET and SIPRNET. In particular, the RDT&E funds were applied to the Smart Card/Common Access Card (CAC) to integrate and test with the current Defense Enrollment Reporting System (DEERS)/Real-Time Automated Personnel Identification Systems (RAPIDS) ID and registration system. Additionally, the funds were used to prototype and test replicating the DoD Public Key directory to each Air Force base-level directory structure. Furthermore, the funds were used to perform technology integration and testing of new hardware CAC token into the user desktop environment. Finally, a small sum of the funds were allotted to the AF SPO for program support activities.

(U) **FY 2002 (\$ in Thousands)**

- (U) \$0 Accomplishments/Planned Program
- (U) \$27,700 Completed Initial implementation of Class 3 Public Key Infrastructure which included the initial implementation of registration activities (estimated target of 700,000 certificates to users) and the initial rollout of Common Access Cards to AF users; support of initial reader and middleware implementation at bases that will be issued the Common Access Card; initial support of Public Key Infrastructure use of AF Directory Services for certificate status checking; evaluation of new technologies that will support increased use of PKI Class 3 and Target Class 4 on the NIPRNET and SIPRNET
- (U) \$816 Completed testing support of Public Key Infrastructure Certificate Directories and other infrastructure components
- (U) \$965 Completed program and management control (SPO activities)

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**07 - Operational System Development****0303112F AIR FORCE COMMUNICATIONS****4884**(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands) Continued**

(U) \$29,481 Total

(U) **FY 2003 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program

(U) \$0 No Activity

(U) \$0 Total

(U) **FY 2004 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program

(U) \$0 No Activity

(U) \$0 Total

(U) **B. Budget Activity Justification**

This is a budget activity 7, Operational System Development because it supports Air Force requirements to prototype, integrate, and test Public Key Infrastructure components including registration and usage hardware/software/middle-ware, Common Access Cards, and directories on Air Force computer systems and networks.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget	31,274	0	0	
(U) Appropriated Value	31,828			
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-554			
b. Small Business Innovative Research	-870			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram	-779			
e. Rescissions	-144			
(U) Adjustments to Budget Years Since FY 2003 PBR				
(U) Current Budget Submit/FY 2004 PBR	29,481		0	29,481
(U) <u>Significant Program Changes:</u>				

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(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

(U) AF RDT&amp;E

(U) Other APPN

(U) **E. Acquisition Strategy**

Electronic Systems Center (ESC) Information Assurance Product Area Directorate (PAD) manages the AF PKI Program. All major contractors within this program element have been awarded contracts after full and open competition or through existing government contracting vehicles. Contracts are executed via GSA, Standard AF contract (through the Standard Systems Group, AL), and Information Technology Services Program (ITSP) to support engineering effort and equipment for the integration of Common Access Card tokens and prototyping of AF base level directories; and initial PKI Class 3 and Target Class 4 certificate issuance, registration, and infrastructure.

(U) **F. Schedule Profile**

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4

(U) Completed prototyping support for PKI Interface/Integration of Tokens

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(U) Completed testing support of PKI Certificate Directories

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(U) Completed Initial Registration Infrastructure

\*

X denotes planned event

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		February 2003		
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT			
07 - Operational System Development				0303112F AIR FORCE COMMUNICATIONS				4884			
(U) A. Project Cost Breakdown (\$ in Thousands)											
				FY 2002		FY 2003		FY 2004			
(U) Prototyping support for Interface/Integration of registration Common Access Card tokens, peripheral readers with Air Force-wide computer and communication architectures				27,700		0		0			
(U) Testing support of PKI Certificate Directories and other infrastructure components				816		0		0			
(U) Program and management control (SPO activities)				965		0		0			
(U) Total				29,481		0		0			
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
<u>Contractor or</u>		<u>Contract</u>									
<u>Government</u>		<u>Method/Type</u>		<u>Award or</u>		<u>Performing</u>		<u>Project</u>			
<u>Performing</u>		<u>or Funding</u>		<u>Obligation</u>		<u>Activity</u>		<u>Office</u>		<u>Total Prior</u>	
<u>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2002</u>	
<u>Product Development Organizations</u>											
Prototyping Support		PR		Dec 00				27,700		0	
<u>Support and Management Organizations</u>											
ESC/DIW SPO Activities		PR		Dec 00				816		0	
<u>Test and Evaluation Organizations</u>											
Test Support		PR		Dec 00				0		965	